



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,165	04/11/2001	Craig Rae Fowler	60,130-788	1533
26096	7590	12/15/2006	EXAMINER	
CARLSON, GASKEY & OLDS, P.C. 400 WEST MAPLE ROAD SUITE 350 BIRMINGHAM, MI 48009				PRESTON, ERIK D
ART UNIT				PAPER NUMBER
				2834

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/833,165	FOWLER ET AL.
	Examiner Erik D. Preston	Art Unit 2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 April 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 and 16-30 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-11 and 16-30 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/28/2005</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6,16,26 & 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al. (EP 1178498, supplied by applicant) in view of Ward et al. (US 4947065).

With respect to claim 1, Murakami teaches a stator body (Fig. 4, #6); a rotor body (which inherently exists to be acted upon by the stator of Murakami); and the stator body being formed of a core of a first material (a ferromagnetic material, Paragraph 46) and having a plurality of circumferentially spaced portions of a second material (Fig. 4, #7) comprising a conductive material (Paragraph 44) deposited into said plurality of spaced portions wherein said second material is more conductive than said first material, but it does not explicitly teach said stator body being generally solid (Murakami teaches a laminated stator core). However, Ward teaches a solid stator core (Fig. 1, #10) for use in dynamoelectric machines. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the laminated stator core of Murakami in view of the solid as taught by Ward because it provides an equivalent and equally well known stator for a dynamoelectric machine that has the added benefits of

simplifying manufacturing concerns and minimizing material scrap losses (Ward, Col. 3, Line 43-Col. 4, Line 6).

With respect to claim 2, Murakami in view of Ward teaches the motor of claim 1, Ward teaches that said first material comprises a first plastic (Col. 3, Lines 25-34) and Murakami teaches that said second material comprises a second plastic different from said first plastic (Paragraph 44).

With respect to claim 3, Murakami in view of Ward teaches the motor of claim 2, and the limitation that the first and second plastic be co-extruded is a method limitation given no patentable weight in a product claim.

With respect to claim 4, Murakami in view of Ward teaches the motor of claim 1, and Ward teaches that said first material comprises a powder metal (Col. 3, Lines 25-34).

With respect to claim 5, Murakami in view of Ward teaches the motor of claim 4, and Murakami teaches that said plurality of circumferentially spaced portions comprise a plurality of circumferentially spaced teeth (as seen in Fig. 4) having an insulating material (Fig. 4, #24) formed at least around said plurality of circumferentially spaced teeth wherein said second material is deposited between said plurality of circumferentially spaced teeth over said insulating material.

With respect to claim 6, Murakami in view of Ward teaches the motor of claim 1, and Murakami teaches that said motor is an AC powered motor (Paragraph 45).

With respect to claim 16, Murakami in view of Ward teaches the motor of claim 2, Ward teaches that said first plastic comprises a ferro plastic (Col. 3, Lines 25-34), and

Art Unit: 2834

Murakami teaches that said second plastic comprises a plastic (ABS resin) filled with a conductive material (Paragraph 44), but it does not explicitly teach the plastic comprising Nylon. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a ABS Nylon mix in the apparatus of Murakami because it has been held that one of ordinary skill in the art at the time the invention would choose a suitable and desirable material, because it would be within the general skill of a worker in the art to select a material on the basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960)).

With respect to claim 26, Murakami in view of Ward teaches the motor of claim 1, and Murakami teaches that said second material forms at least a portion of said outer peripheral surface of said solid core (as seen in Fig. 4).

With respect to claim 27, Murakami in view of Ward teaches the motor of claim 26, and Murakami teaches that said outer peripheral surface of said solid core directly faces an air gap (which inherently exists between the rotor and stator of a motor) formed between said stator and said rotor bodies.

Claims 7-11,17-22,24,25 & 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (US 5517070, previously cited) in view of Murakami et al. (EP 1178498, supplied by applicant) in view of Ward et al. (US 4947065).

With respect to claims 7 & 18, Schmidt teaches a vehicle component movable between a plurality of operational positions relative to a fixed vehicle component (Col. 2,

Art Unit: 2834

Lines 30-35); a motor for driving said vehicle component (as seen in Fig. 1); and said motor including a rotor and a stator, said rotor including a core body (Fig. 1, #33), but it does not teach said motor being an AC motor having a generally solid core body formed of a first material and a plurality of circumferentially spaced conductive portions formed of a second material different than said first material wherein said second material has a greater conductivity than said first material. However, Murakami teaches an AC motor with a core body (Fig. 4, #6) formed of a first material and a plurality of circumferentially spaced conductive portions formed of a second material (Fig. 4, #7) different than said first material wherein said second material has a greater conductivity than said first material, and Ward teaches a solid core body for dynamoelectric machines (Fig. 1, #10). It would have been obvious to one of ordinary skill in the art at the time of the invention to: 1) modify the motor of Schmidt in view of the motor as taught by Murakami because it provides an equivalent core means that is lightweight and improves productivity (Murakami, Paragraph 12); and 2) modify the first material of the core body of Schmidt and Murakami in view of the first material of Ward because, as was stated above, it provides an equivalent and equally well known stator for a dynamoelectric machine that has the added benefits of simplifying manufacturing concerns and minimizing material scrap losses (Ward, Col. 3, Line 43-Col. 4, Line 6).

With respect to claim 8, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 7, Ward teaches that said first material comprises a first plastic (Col. 3, Lines 25-34) and Murakami teaches that said second material comprises a second plastic different from said first plastic (Paragraph 44).

Art Unit: 2834

With respect to claims 9 & 20, Schmidt in view of Murakami in view of Ward teaches the assembly of claims 8 & 19, and the limitation that the first and second plastic be co-extruded is a method limitation given no patentable weight in a product claim.

With respect to claim 10, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 7, and Ward teaches that said first material comprises a powder metal (Col. 3, Lines 25-34).

With respect to claim 11, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 10, and Murakami teaches that said plurality of circumferentially spaced portions comprise a plurality of circumferentially spaced teeth (as seen in Fig. 4) having an insulating material (Fig. 4, #24) formed at least around said plurality of circumferentially spaced teeth wherein said second material is deposited between said plurality of circumferentially spaced teeth over said insulating material.

With respect to claims 17 & 19, Schmidt in view of Murakami in view of Ward teaches the assembly of claims 8 & 18, Ward teaches that said first plastic comprises a ferro plastic (Col. 3, Lines 25-34), and Murakami teaches that said second plastic comprises a plastic (ABS resin) filled with a conductive material (Paragraph 44), but it does not explicitly teach the plastic comprising Nylon. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a ABS Nylon mix in the apparatus of Murakami because it has been held that one of ordinary skill in the art at the time the invention would choose a suitable and desirable material, because it would be within the general skill of a worker in the art to select a material on

the basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960)).

With respect to claim 21, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 18, and Murakami teaches an insulating layer (Fig. 4, #24) formed between said first and second materials.

With respect to claim 22, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 21, Ward teaches that said first material comprises a powdered metal, and Murakami teaches that said plurality of circumferentially spaced conductive portions comprise a plurality of circumferentially spaced teeth (as seen in Fig. 4) separated from each other by spatial areas with said insulating layer (Fig. 4, #24) being formed at least about said plurality of circumferentially spaced teeth and said second material comprises a conductive metal that at least partially fills said spatial areas.

With respect to claim 24, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 18, and Schmidt teaches that said vehicle comprises a closure member (a window) and said fixed vehicle component comprises a frame (a motor housing as seen in Fig. 1, or a window frame that inherently exists).

With respect to claim 25, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 24, and Schmidt teaches that said motor output shaft is in direct driving engagement with a gear assembly (as seen in Fig. 1) that is operably coupled to said closure member.

With respect to claim 28, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 7, and Murakami teaches that said core body includes an outer

peripheral surface, said plurality of circumferentially spaced conductive areas being formed as part of said outer peripheral surface (as seen in Fig. 4).

With respect to claim 29, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 28, and Schmidt teaches that said outer peripheral surface is formed as an outer circumference of said rotor (as seen in Fig. 1).

With respect to claim 30, Schmidt in view of Murakami in view of Ward teaches the assembly of claim 18, and Murakami teaches that said solid core body portion includes an outer peripheral surface, said plurality of circumferentially spaced conductive portions being formed as part of said outer peripheral surface (as seen in Fig. 4).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (US 5517070, previously cited) in view of Murakami et al. (EP 1178498, supplied by applicant) in view of Ward et al. (US 4947065) further in view of Denne (US 5440183). Schmidt in view of Murakami in view of Ward teaches the assembly of claim 18, wherein the rotor includes said solid core body portion formed of said first material and said plurality of circumferentially spaced conductive portions formed of said second material, but it does not teach that said stator is also formed in such a manner. However, Denne teaches that permanent magnets in dynamoelectric machines may be replaced with electromagnets (Deene, Col. 4, Lines 16-24) . It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the permanent magnet stator of Schmidt with an electromagnet stator of Murakami such as is taught by Denne

Art Unit: 2834

because electromagnets provide an equivalent and equally well known means for producing magnetic fields that have the added benefit of being controllable (Denne, Col. 4, Lines 16-26).

Response to Arguments

Applicant's arguments, see Remarks, filed 4/18/2005, with respect to the rejection(s) of claim(s) 1-11 & 16-30 under Johnston have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the above-cited references.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is (571)272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



12/01/2006



BURTON S. MULLINS
PRIMARY EXAMINER